

OBSERVATIONS ON THE HABITS OF SOME BREEDING BIRDS OF CHATHAM COUNTY, GEORGIA

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Colinus virginianus virginianus. Bob-white. This species, the only gallinaceous bird that breeds in the county, is moderately common, although it is restricted to certain sections; localities which are apparently suitable being entirely avoided. During the breeding season it is frequently met with in pairs along roadsides traversing open country wherever suitable cover borders them. It is not known to occur on Ossabaw island, one of the largest sea islands on the coast of Georgia, although the character of the country on this island and the mainland is in all respects very similar. It is quite generally and commonly distributed in the cultivated, and open, sparsely timbered districts adjacent to Savannah. Since 1914 I have encountered it in increasing numbers in the heavily forested portions, particularly in the dense undergrowth usually found about the margins of swamps. This apparently is an indication that this species is lately somewhat modifying its habits, since before the year mentioned I knew this bird as strictly an inhabitant of the open country only. While more and more numerously frequenting the forests, it does not appear often to seek nesting sites in them; still restricting itself nearly exclusively to open territory as a breeding environment; ordinarily selecting brushy fields. However, on May 22, 1915, I discovered a nest containing eleven apparently heavily incubated eggs in thickly wooded land bordering a dense swamp. This nest was placed at one end of a large prostrate log, which apparently had long lain there, being nearly completely covered with pine straw, and dead leaves of many species of deciduous trees which grew in profusion nearby. The surrounding undergrowth was mostly myrtle bushes, interspersed with a few very small gum and oak bushes. The nest was situated partially under a large brush pile composed of several bushy dead

oak limbs matted together, and was very effectively concealed. With the exception of the lining, which consisted of dried grasses, this nest was composed of pine straw. The circumstances surrounding the discovery of this nest are peculiar. I was making an effort to flush a Chuck-will's-widow (*Antrostomus carolinensis*) which I suspected was nesting in the vicinity, when I noticed from a distance of about fifty feet a Bob-white (probably the female) running slowly in a circle and trailing her wings on the ground apparently in great distress. A short search revealed the nest, as it was close to the point where I had noted the bird. I was surprised, and somewhat unnerved, on stooping to examine the contents of the nest, to find that a huge King Snake had taken possession and was on the point of beginning its feast.

The Bob-white is not by any means wholly a ground frequenting species. I have repeatedly seen it alight in the high branches of tall trees, but that it does so for purposes of feeding I have been unable to determine. I do not believe, however, that such is the case, since I have never observed it feeding elsewhere than upon or very close to the ground. It is exceedingly valuable as a destroyer of the boll weevil and other destructive insects. The coveys begin to break up about the middle of April, and by the first of May Bob-whites are to be seen only in pairs, and their calling and answering notes can be heard throughout the day from many sections of their haunts. Nest building commences sometimes as early as the latter part of April. My earliest breeding record is May 14, 1916, when I examined a nest containing fourteen fresh eggs, this being also the largest number that I have observed in a nest. As far as my observations go an egg is laid daily, and incubation does not commence until the complement is finished. Throughout the long trying period of incubation the male remains nearby, cheering his mate with his one and two syllabled whistling note. My many attempts to observe and study a brood of young Bob-whites has resulted in failure

each time. Occasionally I have surprised a mother leading her brood across a country road, but upon entering the cover, the tiny creatures disappear among the dead leaves and grasses, becoming seemingly a part of the vegetation among which they hide. It has been stated by several authorities that in the south this species raises two broods, but this information has evidently not been gained from first hand observation, for, unless some mishap occurs to the first clutch of eggs, no more will be laid that season. The Bob-white is an adept at hiding, and unless too closely pressed, will always seek to escape by running through the dense grass and underbrush, which it does with great rapidity.

Chamepelia passerina passerina. Ground Dove. A characteristic bird of the Lower Austral zone, this species, while formerly abundant, is now quite uncommon. Its decrease during the past five years has been rapid and the few that now breed are restricted to three or four widely separated localities. From 1910 to 1913 I noted it in considerable numbers throughout the county. The cause of its rather sudden decrease is not apparent; the elements cannot be considered as a contributing factor, at least not to the extent of bringing about its almost complete extermination, since this bird can easily sustain itself through protracted periods of intense cold, which, however, rarely occur in this latitude. The winter of 1917-18 was the most severe within the memory of the oldest inhabitants of Savannah, but even before this the Ground Dove had already decreased to the point of almost total disappearance. To the agency of destruction by man, either, cannot be attributed its decline from an abundant species to one now decidedly uncommon, as it is not considered good eating. Neither can the conversion of its haunts to agricultural uses be a cause of its present scarcity, since it frequents and breeds in country of widely varied character; including cultivated fields, where it often breeds, invariably placing its nest on the "hills" among the growing vegetables.

During the period when it was abundant and generally dispersed in the county, I had many opportunities to observe its habits, and while it was to be met with in equal abundance in country of greatly diverse character, its preferred haunts were sparsely timbered woodland containing low and dense undergrowth. On every excursion into such localities I always met with it in great abundance, and its interesting and confiding ways so greatly endeared it to me that I have viewed its gradual disappearance with sorrow and regret.

In its choice of nesting sites, it exhibits a very wide range. It most frequently selects a low bush, either thinly or densely foliated. Other situations in which I have found nests include the top of a low stump; high up on a horizontal limb of a large pine, and frequently, upon the ground. An instance of its nesting on the ocean beach came under my observation on May 13, 1915, on Ossabaw island. In this case there was no attempt at nest building, the eggs being deposited in a slight depression in the sand; and when breeding on the ground in woodland or cultivated fields, little or no material is assembled. In fact, nest building occupies little of the time and attention of this species, as when placed in trees or bushes the nest is simply a slight affair of a few twigs loosely interlaid. Further evidence of this bird's disinclination to build a nest for the reception of its eggs is found in the fact that I once found a set in a deserted nest of the Cardinal (*Cardinalis cardinalis cardinalis*). The long nesting period of the Ground Dove is attested by numerous observers, although I have myself never secured eggs earlier than April 15, nor later than June 6; nor have I seen other evidences of early or late nesting. So gentle and confiding are these birds that it is often possible to touch them while on the nest, especially if incubation is advanced. Upon dropping off the nest they always simulate lameness, dragging themselves over the ground with drooping wings in an effort to draw the intruder away. I am of the opinion that

they remain mated for life, since they are observed throughout the year most frequently in pairs.

During the past four years I have been unable to locate a single nest of this species, so uncommon has it become. The last nest noted by me was on June 6, 1916, containing two incubated eggs. It was placed among the terminal twigs of a horizontal limb of a large pine, at a height of seven and a half feet. It used to be a common and familiar bird in the rural settlements, nesting in the shade trees and shrubbery about farm houses. Its rather mournful note could be heard throughout the breeding season, and many pairs could be seen fearlessly walking in the roadways and narrow paths, never flying and seldom even more than moving to one side as a person passed by. This species is non-migratory, passing its entire life in or very near the locality at which it was hatched. So attached to certain localities does it become that even if the undergrowth is cleared and the land cultivated the bird remains, nesting on the ground among the vegetables.

Colaptes auratus auratus. Flicker. Wherever there are areas of cut-over lands on which remain an abundance of dead trees this species will be found in large numbers. At all seasons it exhibits a preference for open pine barrens, but, particularly during the breeding season, is occasionally met with about the edges of swamps if they contain suitable nesting sites. It is abundant on all of the wooded islands, particularly Ossabaw island, where I observed it in large numbers in May, 1915. Here it is oftenest seen in the woods close to the salt marsh or adjoining the beach, apparently not frequenting in any numbers the more heavily forested interior of the island. It prefers tall dead palmetto trees in which to breed and all along the margin of the island can be seen numerous holes which this woodpecker had excavated.

The tendency — too well known to receive more than passing notice here — of this species to continue laying eggs if they are taken has been often noted by me, although

the number of eggs that are laid by a pair in a season if continually robbed is much smaller than more northern breeding Flickers have been known to deposit. In 1915 I secured some data concerning this habit. On May 6, I found a nest in a dead pine at a height of ten feet, containing six fresh eggs, which I took. On May 30 it contained five eggs which I also collected, and a third set, consisting of five, was completed on June 20. At this point, however, the birds deserted the nesting hole and excavated a new one nearby which was inaccessible. The hole from which these eggs were taken was deepened before each new set was deposited. Upon collecting the second set an increased depth of $2\frac{1}{2}$ inches was noted, while the birds removed an inch and a half of wood before depositing the third set. After this last excavation the hole measured twenty-two inches in depth. On April 29, 1916, I found a nest containing five slightly incubated eggs. This is my earliest breeding record. The hole was eight feet high in an oak stump. I have found nests as low as five feet, but this species usually excavates far up and in dead trees on the verge of collapse. According to my observations the Flicker breeds very irregularly. I have noted incubated eggs on April 29, and have seen birds excavating, late in May, what I considered their first hole of the season.

In approaching an occupied nest, if it is close to the ground, the sitting bird always leaves the hole before the observer arrives closer than fifty or seventy-five feet from the nesting tree. If the hole is high up, however, the bird remains in it, often not leaving until the trunk of the tree is rapped upon several times.

This species secures much of its food upon the ground. In crossing any tract of cut-over land upon which has been left numerous limbs and rotten trunks it is not unusual to note a number of Flickers feeding among the brushwood, industriously chiseling out large chunks of rotten wood in their search for insects. When disturbed they generally fly quite a distance off and alight high up on some tree.

A nest-full of half grown Flickers is indeed an interesting, if noisy, crowd of youngsters. I can recall to mind no other bird voice that sounds more like the hissing of a large snake. It is doubtful, however, whether this sound is produced by the young birds in order to frighten their enemies; indeed my observations convince me that this is not the motive that prompts the uttering of this peculiar note, since it is not only given when the young are disturbed by a person, but is uttered whenever the parents return to the nest with food. The young remain in the nest about sixteen days, at the end of which period the five or six full grown birds fill the nesting hole to overflowing. They are very ravenous, requiring a great amount of food daily, both parents working unceasingly during the daylight hours to supply the demand for sustenance. During the first few days of life out of the nest the young remain entirely upon the ground, feeding largely upon ants. They soon become strong upon the wing, however, and as winter approaches, they, together with the parents, can be observed high up among the branches of berry-bearing trees, feeding upon the fruit. In this latitude insects do not entirely disappear in winter, but the Flicker's diet is chiefly vegetable during that season.

REVIEW OF "MIGRATION RECORDS FOR
KANSAS BIRDS":

(Wilson Bull., 1918, Dec. 1919, March and June.)

I have read and re-read the series of articles bearing the above title: published by the instructress in Zoölogy of the Kansas State University. Having resided in northeastern Kansas for fifteen years, I am naturally much interested in the *ornis* of the entire state. Many of the records in the article cited above, being so greatly variant from the results of my own observations and records, and some of them so manifestly misleading, I feel that one should, in the interests of exact ornithological records,